## CLAIMS

We claim:

1. A dietary fiber composition isolated from a cereal grain containing β-glucan, comprising:

a β-glucan compound having a weight average molecular weight ranging from about 50 kDa to about 1000 kDa, wherein said β-glucan compound is a modified form of a cereal β-glucan; and,

wherein a 1% mixture by weight of said dietary fiber composition and water is stable and has a viscosity of about 1500 cps or less.

2. A dietary fiber composition according to claim 1, wherein said β-glucan composition has a protein content of less than about 3% by weight.

3. A dietary fiber composition according to claim 1, wherein said β-glucan compound comprises at least 30% of the composition by weight.

4. A dietary fiber composition according to claim 2, wherein said β-glucan compound comprises at least 40% of the composition by weight.

5. A dietary fiber composition according to claim 3, wherein said β-glucan compound comprises at least 70% of the composition by weight.

6. A dietary fiber composition according to claim 1, wherein the weight average molecular weight is less than about 750 kDa.

7. A dietary fiber composition according to claim 1, wherein said dietary fiber composition has a flavor intensity of about 5 or less as determined in a standardized sensory evaluation.

8. A dietary fiber composition according to claim 7, wherein said dietary fiber composition has a flavor intensity of about 3 or less.

9. A dietary fiber composition according to claim 8, wherein said dietary fiber composition has a flavor intensity of about 2 or less.

10. A dietary fiber composition according to claim 6, wherein the weight average molecular weight ranges from about 100 kDa to about 250 kDa.

11. A dietary fiber composition according to claim 10, wherein the weight average molecular weight ranges from about 120 kDa to about 170 kDa.

12. A dietary fiber composition according to claim 1, wherein the viscosity is about 100 cps or less.

13. A dietary fiber composition according to claim 12, wherein the viscosity is about 60 cps or less.

14. A dietary fiber composition according to claim 13, wherein the viscosity is about 5 or less.

15. A dietary fiber composition according to claim 1, wherein said dietary fiber composition has a fat content of about 2% or less.

16. A dietary fiber composition according to claim 1, wherein the composition is incorporated into a food or beverage product.

17. A dietary fiber composition according to claim 16, wherein the food or beverage product is a food product chosen from baked goods, cereal, extruded snacks, meat substitutes, bars, salad dressings, soup, sauces, yogurt, frozen desserts, refrigerated and frozen doughs, and confections.

18. A dietary fiber composition according to claim 17, wherein the food or beverage product is a baked good chosen from breads, rolls, buns, corn bread, quick breads, doughnuts, muffins, bagels, flatbreads, pancakes, waffles, cookies, cakes, pastries, croissants, scones, biscuits, crackers, pretzels, tortillas, taco shells, pasta, pie crusts, pizza crusts, and bakery mixes.

19. A dietary fiber composition according to claim 18, wherein the baked good is a white bread further comprising bread flour, all-purpose shortening, sugar, salt, calcium sulfate, dough conditioner, yeast, water and wheat gluten.

20. A dietary fiber composition according to claim 17, wherein the food or beverage product is a bar chosen from meal replacement bars, energy bars, high protein bars, granola bars, unfilled cereal bars, and filled cereal bars.

21. A dietary fiber composition according to claim 20, wherein the bar is a meal replacement bar further comprising soy protein, calcium caseinate, whey protein concentrate, vitamin and mineral premix, salt, high fructose corn syrup, high maltose corn syrup, honey, canola oil, soybean oil, and water.

22. A dietary fiber composition according to claim 16, wherein the food or beverage product is a soup further comprising water, chicken broth,

maltodextrin, sup base, modified food starch, whey protein concentrate, soybean salad oil, mono- and diglycerides, and water.

23. A dietary fiber composition according to claim 16, wherein the food or beverage product is a yogurt, further comprising liquid sucrose, and high fructose corn syrup.

24. A dietary fiber composition according to claim 16, wherein the food or beverage product is a beverage product chosen from juice, juice drinks, milk, milk drinks, meal replacement beverages, diet and weight control beverages, powdered drink mixes, dairy-based drinks, dairy and non-dairy creamers, soy-based and rice-based beverages, energy and sports drinks, high-protein drinks, carbonated drinks, gel drinks, water and near water, tea-based beverages, coffee-based beverages, fruit and vegetable-based drinks, and smoothies.

25. A dietary fiber composition according to claim 24, wherein the food product is a juice drink further comprising fruit juice concentrate, high intensity sweeteners, acidulant, and water.

26. A process for reducing the molecular weight of a cereal β-glucan, comprising: using a first enzyme or first combination of enzymes to perform a non-specific digestion of polysaccharides found in a cereal, wherein the polysaccharides include β-glucan having a weight average molecular weight and starch, and wherein the non-specific digestion reduces the weight average molecular weight of the β-glucan to a reduced weight average molecular weight and breaks down the starch.

27. A process according to claim 26, wherein the first enzyme or first combination of enzymes has amylase, cellulase, and glucanase activity.

28. A process according to claim 27, wherein the first enzyme or first combination of enzymes is a first enzyme chosen from SPEZYME LT-75 AND SPEZYME LT-300.

29. A process according to claim 27, wherein the reduced weight average molecular weight ranges from about 50 kDa to about 1000 kDa.

30. A process according to claim 29, wherein the reduced weight average molecular weight ranges from about 120 kDa to about 170 kDa.

31. A process according to claim 27, further comprising using a second enzyme or second combination of enzymes to further digest the starch.

32. A composition, comprising: a β-glucan composition in amount sufficient to lower LDL-C, wherein said β-glucan composition comprises a β-glucan compound having a weight average molecular weight less than or equal to about 200 kDA, and wherein said β-glucan composition has a viscosity less than or equal to about 100 cps, and a 1% mixture by weight of said dietary fiber composition and water is stable and has a viscosity of about 1500 cps or less.

33. A method for obtaining a dietary fiber containing material, comprising:

forming an aqueous mixture having components which comprise a first exogenous enzyme, a second exogenous enzyme, and one or more cereal grains; wherein the one or more cereal grains comprise β-glucan and starch;

cleaving by a first hydrolysis reaction catalyzed by the first exogenous enzyme at least some of the bonds of the β-glucan, wherein the average molecular weight of the β-glucan is reduced; and cleaving by a second hydrolysis reaction catalyzed by the second exogenous enzyme at least some of the bonds of the starch;

separating and isolating a portion of the mixture, wherein the separated portion contains at least some of the β-glucan;

purifying the β-glucan within the separated portion;

obtaining a dietary fiber containing material; wherein the dietary fiber containing material comprises greater than 40 percent β-glucan; and the average molecular weight of the β-glucan within the dietary fiber containing material is less than 400,000 daltons.

34. A method according to claim 33, wherein at least a portion of the first hydrolysis reaction and a portion of the second hydrolysis reaction occur substantially simultaneously.

35. A method according to claim 33, wherein the first exogenous enzyme also cleaves starch bonds.

36. A method according to claim 33, wherein the second hydrolysis occurs after the first hydrolysis, and the aqueous mixture has a temperature during the first

hydrolysis, and the temperature is raised to a level sufficiently high to substantially inactivate the first exogenous enzyme prior to beginning the second hydrolysis.

37. A method according to claim 33, wherein the aqueous mixture has a temperature, and the method further comprises raising the temperature of the aqueous mixture to a level sufficiently high to substantially inactivate the first exogenous enzyme; adding to the aqueous mixture a third exogenous enzyme; and, cleaving by a third hydrolysis reaction catalyzed by at least the third exogenous enzyme at least some of the remaining uncleaved bonds of the starch, wherein the starch is substantially digested.

38. A method according to claim 33, wherein the one or more one or more cereal grains are selected from the group consisting of oat, barley, rye, and triticale.

39. A method according to claim 33, wherein the first exogenous enzyme exhibits cellulase activity.

40. A method according to claim 39, wherein the enzyme further exhibits β-glucanase activity.

41. A method according to claim 39, wherein the β-glucanase is active at temperatures above a starch gelatinization temperature.

42. A method according to claim 33, wherein the second exogenous enzyme exhibits amylotic activity.

43. A method according to 33, wherein the aqueous mixture is an aqueous slurry.

44. A method according to claim 33, wheirn the cleaving by the first hydrolysis reaction catalyzed by the first exogenous enzyme of at least some of the bonds of the β-glucan occurs while the temperature of the aqueous mixture is between about 65 degrees C and about 75 degrees C.

45. A method according to claim 33, wherein the cleaving by the third hydrolysis reaction catalyzed by at least the third exogenous enzyme of at least some of the bonds of the starch occurs while the temperature of the aqueous mixture is between about 90 degrees C and about 110 degrees C.

46. A method according to claim 36, wherein the cleaving by the second hydrolysis reaction catalyzed by the second exogenous enzyme of at least some of the

bonds of the starch occurs while the temperature of the aqueous mixture is between about 90 degrees C and about 110 degrees C.

47. A method according to claim 37, wherein the third exogenous enzyme is the first as the second exogenous enzyme, and the cleaving by the third hydrolysis reaction catalyzed by the second exogenous enzyme of at least some of the bonds of the starch occurs while the temperature of the aqueous mixture is between about 90 degrees C and about 110 degrees C.

48. A method according to claim 33, wherein the dietary fiber containing material includes about 1% fat or less.

49. A method according to claim 33, wherein the dietary fiber containing material includes about 5% protein or less.

50. A method according to claim 33, wherein the dietary fiber containing material includes about 75% dietary fiber or more.

51. A method according to claim 33, wherein the β-glucan has a polydispersity ranging from about 1.0 to about 6.0.

52. A method according to claim 33, wherein the dietary fiber containing material has a neutral mouthfeel.